

USEPA

WORK ASSIGNMENT FORM

1 WORK ASSIGNMENT INFORMATION

PROJECT NAME Cherokee County, KS CONTRACTOR CH2M HILL WORK ASSIGNMENT NO 102-7L37
ACTIVITY RI/FS EPA CONTRACT NO 68-01-7251 REVISION NO _____
DATE 4/6/89 CONTRACTOR CONTROL NO DEN 68540 MODIFICATION NO _____
(Contracting Officer Use Only)

2 DESCRIPTION OF ACTION



NEW WORK ASSIGNMENT

- Interim SOW schedule and LOE
- Complete SOW estimated budget and schedule

REQUIRED APPROVAL

EPA REGION
HEADQUARTERS



INTERIM AMENDMENT

- Change in LOE Scope by task
- Add additional task or funds



INCREMENTAL FUNDING

EPA REGION
HEADQUARTERS



PARTIAL WORK PLAN APPROVAL



FINAL WORK PLAN APPROVAL

- Approval of work plan
- Add funds



AMENDMENT TO FINAL WORK PLAN APPROVAL

- Change in LOE, scope or budget by task
- Add additional task or funds (includes OF 80 or SF 1411)

EPA REGION
HEADQUARTERS

TECHNICAL DIRECTION MEMORANDUM

- Detailed scope, budget and schedule
- Revised expenditure level
- Minor shift within SOW

(All changes must be within overall scope, budget, and LOE approved by EPA CO)

EPA REGION

WORK ASSIGNMENT COMPLETION NOTIFICATION (NO ATTACHMENTS)

- Contractor originates
- Regional determination
- When signed by CO this constitutes a stop work order

CONTRACTOR

3 BUDGET INFORMATION

TOTAL FUNDING RECEIVED \$ *	INTERIM BUDGET		APPROVED WORK PLAN BUDGET		EXPENDITURE LIMIT (\$L) *	
	(TECHNICAL LOE)	(SF)	(TECHNICAL LOE)	(SF)	(TECHNICAL LOE)	(SF)
CURRENT 2,128,505			21,604	1,789,719	21,502	1,785,183
THIS ACTION 82,466			1,062	82,466	1,062	82,466
TOTAL 2,210,971			22,666	1,872,185	22,564	1,867,649
* Other - other estimates may be needed regularly in expenditure limit sheet. EPA estimated LOE from other WA _____			* INCLUDES FEES		* ESTABLISHED BY RPP/PO	

4 WA COMPLETION DATE

CURRENT 4/30/89 REVISED 8/31/89

5 EPA COMMENTS

South Galena well sampling and site-wide management activities

6 APPROVALS

CONTRACTOR SIGNATURES

David M. Gierke for Neil Gerber 4/5/89
SITE MANAGER / FIRM

303 771-0900 DATE
4/4/89
REG. ONAL MANAGER / FIRM HILL DATE

EPA SIGNATURES

John C. Finner 4-10-89
REGIONAL PROJECT MANAGER DATE

FTS 757-2554 PHONE
REGIONAL PROJECT OFFICER DATE



APPROVED AS SUBMITTED



APPROVED WITH CHANGES



NOT APPROVED

SIGNATURE OF CONTRACTING OFFICER

DATE APPROVED

CC EPA Project Officer
RPO/RPM
Contractor
EPA Contracting Officer (when only expenditure limit column is used)

UPDATE 11-13-88



S00025625
SUPERFUND RECORDS

ATTACH STATEMENT OF WORK
(PER DESCRIPTION OF ACTION)

25464

CONTRACT PRICING PROPOSAL COVER SHEET		1. SOLICITATION/CONTRACT/MODIFICATION NO. 68-01-7251		FORM APPROVED OMB NO. 3090-0116
NOTE: This form is used in contract actions if submission of cost or pricing data is required (See FAR 15.804-6(b))				
2. NAME AND ADDRESS OF OFFEROR (Include ZIP Code) CH2M HILL Southeast, Inc. P. O. Box 4400 Reston, VA 22090		3A. NAME AND TITLE OF OFFEROR'S POINT OF CONTACT Neil Geitner Site Manager		3B. TELEPHONE NO. 303-771-0900
		4. TYPE OF CONTRACT ACTION (Check)		
		<input type="checkbox"/> A NEW CONTRACT <input type="checkbox"/> B. CHANGE ORDER <input checked="" type="checkbox"/> C. PRICE REVISION/REDETERMINATION		<input type="checkbox"/> D. LETTER CONTRACT <input type="checkbox"/> E. UNPRICED ORDER <input checked="" type="checkbox"/> F. OTHER (Specify) Work Plan Revision
5. TYPE OF CONTRACT (Check) <input type="checkbox"/> FFP <input type="checkbox"/> CPFF <input type="checkbox"/> CPIF <input checked="" type="checkbox"/> CPAF <input type="checkbox"/> FPI <input type="checkbox"/> OTHER (Specify)		6. PROPOSED COST (A+B+C)		
		A. COST \$ 1,717,715	B. PROFIT/FEE \$ 154,470	C. TOTAL \$ 1,872,185
7. PLACE(S) AND PERIOD(S) OF PERFORMANCE Cherokee County, KS (4/30/89 - 8/31/89)				
8. List and reference the identification, quantity and total price proposed for each contract line item. A line item cost breakdown supporting this recap is required unless otherwise specified by the Contracting Officer (Continue on reverse, and then on plain paper, if necessary. Use same headings.)				
A. LINE ITEM NO	B. IDENTIFICATION	C. QUANTITY	D. TOTAL PRICE	E. REF.
	REM IV REMEDIAL PLANNING ACTIVITIES Cherokee County, KS (102-7L37) Request for Approval of Work Plan Revision		\$1,872,185 (22,666 LOE)	
9. PROVIDE NAME, ADDRESS, AND TELEPHONE NUMBER FOR THE FOLLOWING (If available)				
A. CONTRACT ADMINISTRATION OFFICE Mr. Robert Foster U.S. EPA, OIG 211 Main Street, Suite 220 San Francisco, CA 94105 415/974-7084		B. AUDIT OFFICE Mr. Robert Foster U.S. EPA, OIG 211 Main Street, Suite 220 San Francisco, CA 94105 415/974-7084		
10. WILL YOU REQUIRE THE USE OF ANY GOVERNMENT PROPERTY IN THE PERFORMANCE OF THIS WORK? (If "Yes," identify) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO equipment listed in prime contract		11A. DO YOU REQUIRE GOVERNMENT CONTRACT FINANCING TO PERFORM THIS PROPOSED CONTRACT? (If "Yes," complete Item 11B) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		11B. TYPE OF FINANCING (check one) <input type="checkbox"/> ADVANCE PAYMENTS <input checked="" type="checkbox"/> PROGRESS PAYMENTS <input type="checkbox"/> GUARANTEED LOANS
12. HAVE YOU BEEN AWARDED ANY CONTRACTS OR SUBCONTRACTS FOR THE SAME OR SIMILAR ITEMS WITHIN THE PAST 3 YEARS? (If "Yes," identify item(s), customer(s) and contract number(s)) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO REM/FIT 68-01-6692		13. IS THIS PROPOSAL CONSISTENT WITH YOUR ESTABLISHED ESTIMATING AND ACCOUNTING PRACTICES AND PROCEDURES AND FAR PART 31 COST PRINCIPLES? (If "No," explain) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
14. COST ACCOUNTING STANDARDS BOARD (CASB) DATA (Public Law 91-379 as amended and FAR PART 30)				
A. WILL THIS CONTRACT ACTION BE SUBJECT TO CASB REGULATIONS? (If "No," explain in proposal) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Mod. CAS 401 and 402		B. HAVE YOU SUBMITTED A CASB DISCLOSURE STATEMENT (CASB DS-1 or 2)? (If "Yes," specify in proposal the office to which submitted and if determined to be adequate) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
C. HAVE YOU BEEN NOTIFIED THAT YOU ARE OR MAY BE IN NON-COMPLIANCE WITH YOUR DISCLOSURE STATEMENT OR COST ACCOUNTING STANDARDS? (If "Yes," explain in proposal) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		D. IS ANY ASPECT OF THIS PROPOSAL INCONSISTENT WITH YOUR DISCLOSED PRACTICES OR APPLICABLE COST ACCOUNTING STANDARDS? (If "Yes," explain in proposal) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
This proposal is submitted in response to the RFP contract, modification, etc. in Item 1 and reflects our best estimates and/or actual costs as of this date				
15. NAME AND TITLE (Type) Meridith Brehmer Contracts Administrator		16. NAME OF FIRM CH2M HILL Southeast, Inc.		
17. SIGNATURE <i>Meridith Brehmer</i>				18. DATE OF SUBMISSION 4/6/89

WORK PLAN REVISION REQUEST
WELL INVENTORY AND SAMPLING
SOUTH OF GALENA SUBSITE
CHEROKEE COUNTY SITE

DEN68541.PM
April 5, 1989

INTRODUCTION

EPA Region VII has requested that CH2M Hill conduct additional RI activities in an area south of the Galena Subsite in the Cherokee County Superfund Site. This new study area, designated as the South Galena Study Area, is shown in Figure 1. The area is bounded by the Missouri and Oklahoma State lines to the east and south, Spring River to the west, and Shoal Creek to the north. The area around Lowell, Kansas is excluded from the study area since it is part of the previously conducted site wide well inventory investigation.

This area was not included in the Galena Subsite studies because it is not part of the intensive mining around Galena. The focus of the proposed activities is to investigate the extent of mining related contaminants in the shallow groundwater aquifer. This will be completed by sampling domestic use wells in the shallow groundwater aquifer. Like the Galena Subsite, it is presumed that the residents in the South Galena Study Area are largely dependent on the shallow groundwater for domestic water supplies. There are no known community water systems in the study area.

This WPRR also authorizes sampling of selected wells in the Galena Subsite and one in the area north of the Galena Subsite. Ten wells in the Galena Subsite have been equipped with treatment units and sampling will be performed as part of a continuing program to evaluate the treatment units' performance. One well in the area north of the Galena Subsite will be sampled at the request of EPA Region VII. Other wells in the north area were sampled in the fall of 1988.

In addition to the sampling activities, this WPRR includes support for continuation of the site wide project management subtask. Previous project WPRRs have supported this subtask, in three month increments, through March 1989.

This WPRR supports site wide project management activities from April through June 1989.

The objectives of the shallow well sampling program are:

- o To inventory and sample all available shallow groundwater wells in use by residents within the South Galena Study Area
- o To measure the groundwater level in each well in the South Galena Study Area that can be accessed in order to develop preliminary water table elevations (limited by the one time data collection time period)
- o To identify and document evidence of past or present mining activities in the South Galena Study Area (i.e. mine waste piles, shafts, mill sites, etc)
- o To sample selected wells in the Galena Subsite and the area north of the Galena Subsite

The remainder of the WPRR presents the scope of work, budget, and schedule.

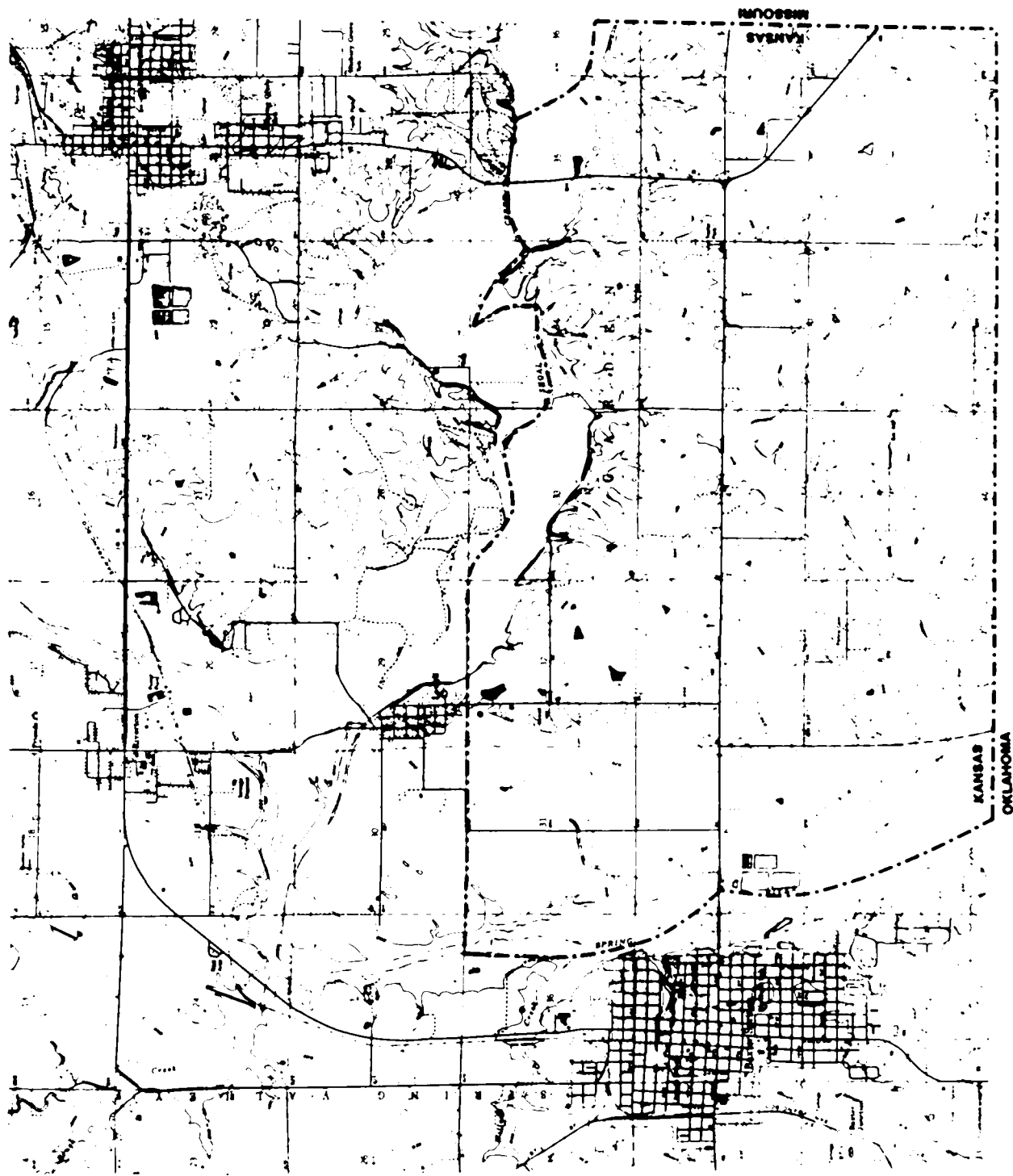


FIGURE 1
WELL INVENTORY AND SAMPLING
SOUTH GALENA STUDY AREA
CHEROKEE COUNTY, MO

WORK SCOPE

Table 1 list the subtasks that are included in this WPRR. A description of each subtask is presented below.

Table 1
WPRR SUBTASKS

MM	Site wide Project Management
PM	Activity Management
FK	Field Work Support
FQ	Field Work
T1	Technical Memorandum

SUBTASK MM--SITE WIDE PROJECT MANAGEMENT

This WPRR supports continuation of the site wide project management subtask from March 1989 through June 1989. Previous work plans have requested support of this subtask in three month increments. The latest request authorized funding for this subtask through March 1989.

Specific activities supported by this subtask includes:

- o Providing liaison with EPA and ZPMO on all project matters
- o Directing overall project planning and coordinating project activities
- o Providing technical guidance and quality reviews in concert with the senior technical review team
- o Preparing technical, schedule, and financial reports monthly for EPA and ZPMO

- o Coordinating communication between subcontractors, associate firms and CH2M Hill
- o Developing and maintaining project schedules in concert with the RPM

SUBTASK PM--ACTIVITY MANAGEMENT

This subtask includes funds to provide for technical management of the RI activities presented in this WPRR. The subtask activities include frequent project management interface with the project team members, senior review team members, and EPA, regarding matters specific to the RI activities in this WPRR. This subtask does not include site wide project management funding.

SUBTASK FK--FIELD WORK SUPPORT

This subtask includes those activities associated with preparing supplies and mobilizing staff for the field work activities. Specific activities include preparation of the Region VII Routine Analytical Services (RAS) and Special Analytical Services (SAS) requests, initiating sample paper work (field sheets, sample matrix forms, sample bottle labels), and obtaining and checkout of field equipment and supplies.

SUBTASK FQ--FIELD WORK

The field work consists of five specific activities. The activities are:

1. Inventory all shallow groundwater wells in use by residents within the South Galena Study Area
2. Sample all shallow groundwater wells in use by residents within the South Galena Study Area
3. Measure the groundwater level in each well in the South Galena Study Area that can be accessed

4. Identify and document evidence of past or present mining activities in the South Galena Study Area
5. Sample selected wells in the Galena Subsite and the area north of the Galena Subsite

Activity 1

The first activity will be to inventory all shallow groundwater wells in use within the South Galena Study Area. This will be accomplished by reviewing USGS maps and aerial photos followed by an in-field house and business count. A preliminary review of the available USGS map indicated that potentially 270 buildings exist in the South Galena Study Area. This does not include the area around Lowell which was inventoried and sampled under a previous work plan.

Each well owner will be identified and an inventory questionnaire will be completed. Based on previous site wide studies, it is assumed that a public water supply does not exist within the South Galena Study Area. This will be verified during the in-field inventory.

Activity 2

The second activity will be to sample the inventoried wells within the South Galena Study Area. Some wells may not be sampled because of lack of owner consent, access problems, or no longer in service. Samples will be collected for total RAS metals, selected general water chemistry parameters (sulfate, chloride, carbonate, bicarbonate, nitrate, and specific conductance) and field measurements. This WPRR assumes that the EPA Region VII Laboratory will be used for all laboratory analyses. Field measured parameters will include temperature, specific conductance, and pH.

Activity 3

The third task is to measure the shallow groundwater elevation in those wells that can be readily accessed. This data will be used to develop a preliminary groundwater flow analysis. Interpretation of the analysis will be limited because of the one time sampling event and the limited wellhead and ground surface elevation data (a survey will not be conducted). However, potentiometric surfaces can be approximated with estimated groundwater elevation data.

If contaminants are found in any wells, the analysis may possibly be used to indicate a potential contaminant pathway from mine workings to the well.

Activity 4

This activity will consist of an aerial photo and field reconnaissance level survey of the South Galena Study Area to identify mining related activities. Evidence of past or present mining activity will be documented. Mine waste volumes, if found, will be estimated and the geographic location marked. The type of mine waste (i.e. waste rock, mill processing wastes, slag) will also be noted. Mine waste sampling will not be conducted.

Activity 5

This activity includes sampling the ten domestic wells within the Galena Subsite that have treatment units installed and one well in the area north of the Galena Subsite. Samples will be collected from upstream and downstream of the treatment units (before and after) and submitted to the EPA Region VII Laboratory for total RAS metals. In addition, parameters such as temperature, specific conductance, and pH will be measured in the field.

SUBTASK T1--TECHNICAL MEMORANDUM (TM)

A report that documents the field activities and analytical data associated with the South Galena Study Area investigations will be prepared for submittal to EPA Region VII. Selected analytical parameters will be compared against drinking water standards and criteria (primary and secondary MCLs and MCLGs). A preliminary groundwater flow analysis will be presented (dependent on the quantity and quality of the data to be obtained). Well inventory and sample analytical data sheets will be included in an appendix to the report. This subtask includes preparation of both a draft and final draft technical memorandum. The field activities and analytical data associated with the Galena Subsite and the area north of the Subsite will not be included in this technical memorandum.

This subtask also includes senior CH2M Hill technical review of the draft technical memorandum. Three reviewers will provide senior technical review and comments on the draft report prior to submittal to EPA.

BUDGET

This work plan revision requests an increase of \$82,466 and 1,062 LOE hours to Cherokee County Site Work Assignment 102-7L37 to perform the activities described in the scope of work. A summary of the dollars and LOE hours associated with this work plan revision request are presented in Table 2. Tables 3 through 7 present the detail cost forecasts for each of the WPRR subtasks. The following assumptions have been used in developing the cost estimate:

- o 270 wells in the South Galena Study Area will be inventoried and sampled
- o 1.5 LOE hours per well required for inventory and sampling
- o 20 % of the wells will have to be revisited to obtain inventory and samples
- o 10 % of the wells (27) will be accessed for water elevation measurements
- o Sample bottles will be supplied by the Contract Laboratory Program (potentially 1,000 bottles will be required)
- o Sample analyses will be performed by the Region VII EPA Laboratory (or CLP)

SCHEDULE

The following schedule is proposed for the RI activities presented in the scope of work. Delays in specific activities may result in delays to the overall schedule.

Submit WPRR to EPA	April 7	
WPRR EPA HQ approval	May 12	(EPA)
FSP EPA/ESD approval	May 12	(EPA)
Initiate field work	May 17	
Complete field work	June 2	
Receive analytical data	July 7	(EPA)
Submit draft technical memorandum	July 28	
Receive EPA's comments	August 11	(EPA)
Submit final technical memorandum	August 25	

Table 2

WPRR COST SUMMARY

	Dollars	LOE
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MM Site wide Project Management	23,568	252
PM Activity Management	3,859	70
FK Field Work Support	3,646	56
FQ Field Work	39,918	520
T1 Technical Memorandum	11,472	164
=====		
Work Assignment Incremental Increase	82,466	1,062

